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# The Engineers' Society

of

## Western Pennsylvania

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### THE ENGINEERS' SOCIETY: ITS FUTURE

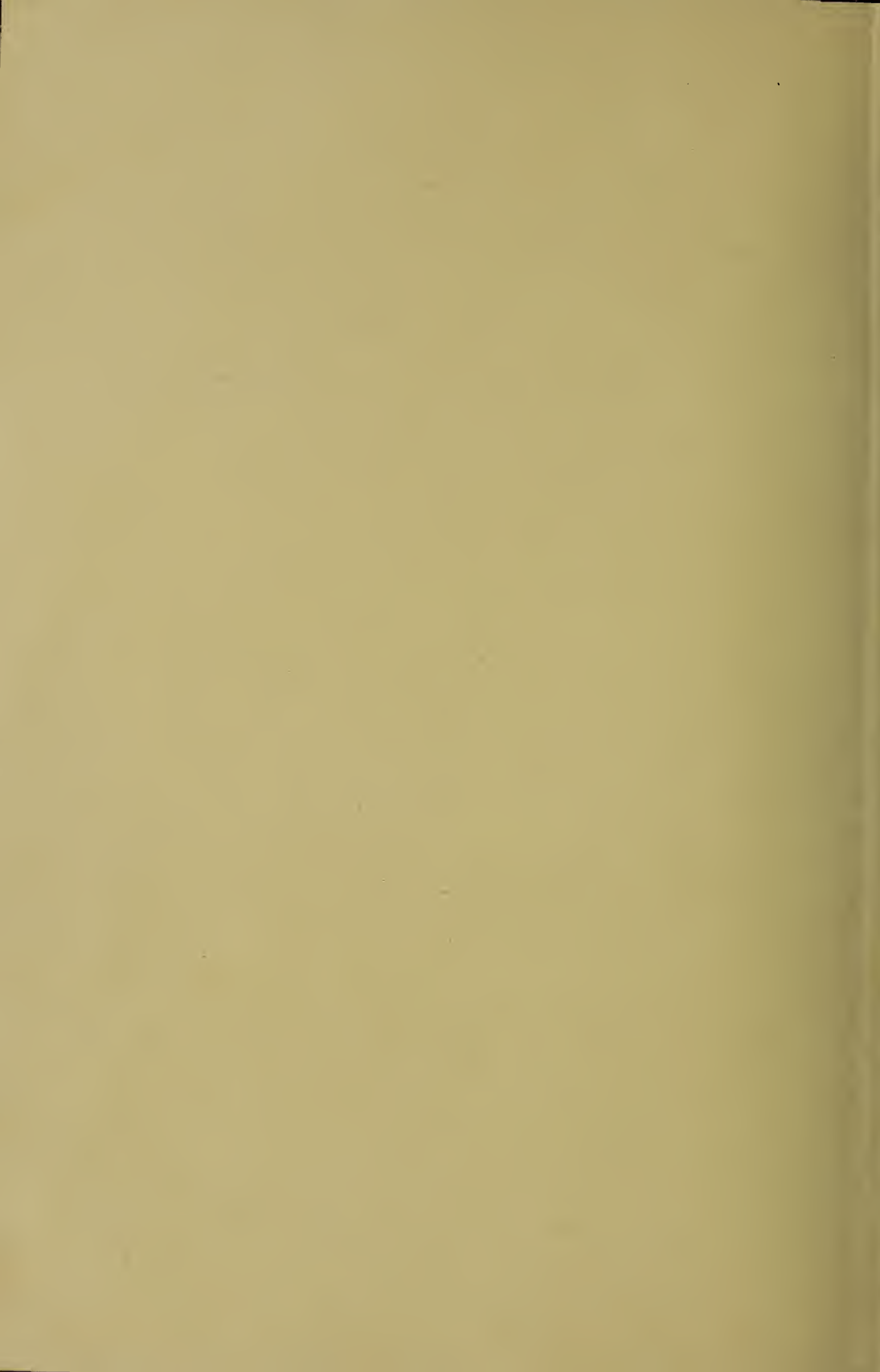
BY RICHARD HIRSCH

Retiring Chairman of the Mechanical Section

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# THE ENGINEERS' SOCIETY—ITS FUTURE

BY RICHARD HIRSCH

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The thoughts in the following paper are presented, not so much as the address of a retiring chairman of a Section, but rather as the opinion of a member of the Society at large; expressed, not upon an impulse, but only after consideration and in the belief that I am giving voice to the sentiments of a large number of our members. Many of the premises given and deductions derived therefrom are formed largely upon an intimate knowledge of conditions in other organizations.

According to our charter, the Society is organized for "the advancement of engineering in its several branches, the professional improvement of its members, and the encouragement of social intercourse among men of practical science." These ends to be obtained by "periodic meetings for the discussion of scientific subjects and social intercourse, the reading of professional papers and excursions to examine objects of engineering interest."

This is a foundation broad enough for any society to be built upon, even though it contemplates the plan and scope of a national organization. The structure of a local society, however, must be fashioned largely upon independent lines. Our work differs necessarily, in many respects, from that of the several National Societies, which, by their very nature, occupy a field distinctly their own. Work along lines of original scientific research, the establishment of engineering standards, the consideration of questions involving the engineering interests of the whole country, are problems which do not come within the province of any body other than one of recognized national standing. As to whether we are covering our own particular field of labor and obtaining the very best possible results, is a question well worth thinking about.

The Society was organized in the year 1880, and the fact that it has maintained that organization continuously for a period of thirty years is, in itself, a worthy accomplishment. At different times in its history the question has arisen as to whether the Society should maintain its identity or become affiliated with other associations. Those responsible for the action whereby our organization has continued to exist, must certainly have been prompted by a desire to see the full accomplishment of those objects set forth in our charter.

#### OUR OBJECTS

Fig. 1 is a diagram of the objects of the Society as outlined by our charter, and shows the present condition of our organization for attaining those objects.

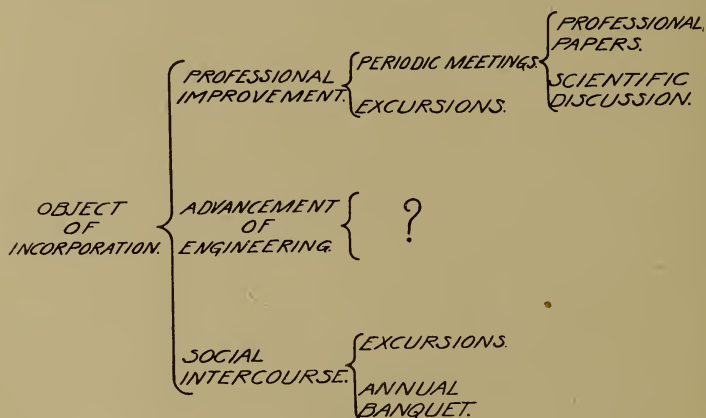


Fig. 1

Fig. 2 is a development of Fig. 1, and, while the objects are not at all changed, the method of carrying out the detail is more clearly defined.

#### PROFESSIONAL IMPROVEMENT

Under this heading come the regular and special meetings of the General Society and Sections for the reading of papers and scientific discussion, but it has become a problem to procure papers for the regular meetings of the Society. One of the reasons offered is the fact that members who are in a position

to write papers of special value are inclined to present them to the National Societies. Such action on the part of a member cannot reasonably be criticised. If the papers are of unusual importance and of value to the engineering fraternity at large, they should be published through the channels where they will

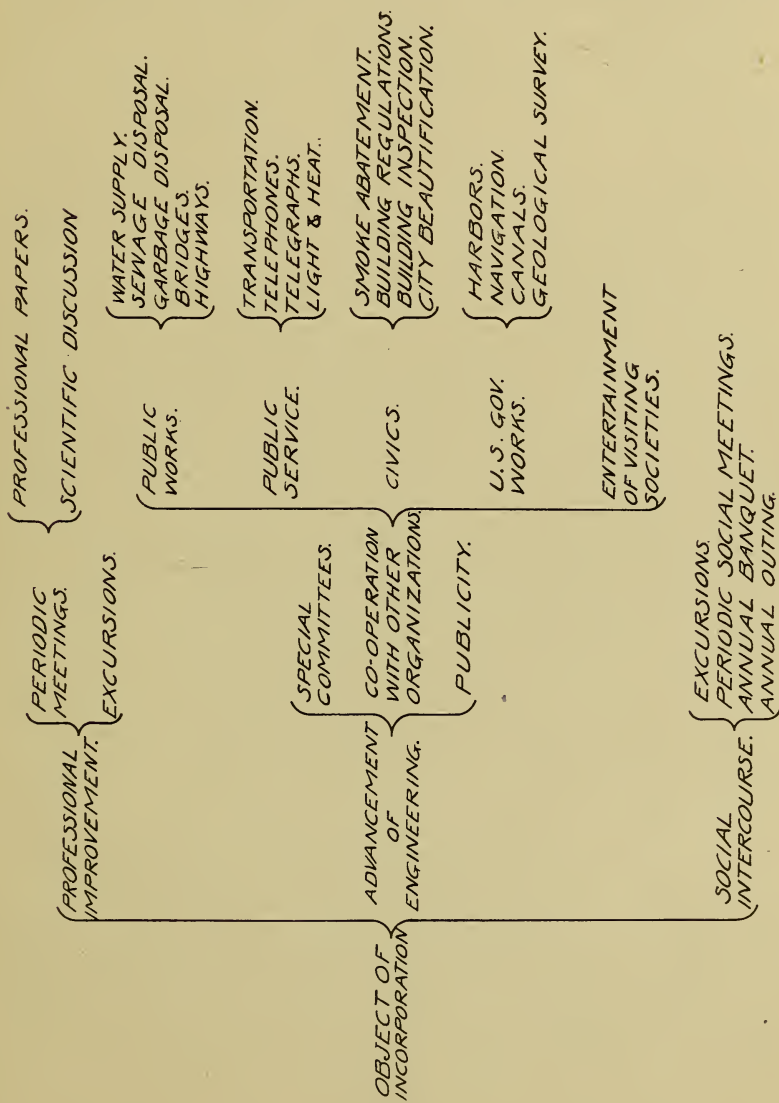


Fig. 2



reach the greatest number, and obtain the widespread recognition they deserve. To offset this condition, we should occasionally procure lectures or papers by men of noted standing in their respective professions, and, if need be, sufficient funds should be appropriated by the Society to defray any expense which might be incurred; but as has been proven in past years, an improvement in the general interest of the Society would, in itself, solve this problem and no recourse would need be made to any unusual or extraordinary measures.

#### SOCIAL INTERCOURSE

There is no part of our work of more importance than the encouragement of social intercourse among our members. For apparent reasons, this means much more in a local society than it can possibly mean in a national organization. We have most beautifully appointed rooms, but during the time I was Secretary of the Society it became a source of much regret to see how little our rooms are used. Frequently, several days would pass without a single member or visitor coming in; some days we would have three, four or possibly half a dozen visitors. What is the reason? Is it because of our location? As a matter of fact, we are on the very outskirts of the business section of the city, and, although we may be only five minutes' walk out of a member's way, it is sufficient to cause him to postpone a visit to that very indefinite "some other time;" were he passing our door he would frequently come in, even though it be for but a few minutes. A change in location cannot be made unadvisedly, but occasional meetings should be held elsewhere, to determine if a change in location would have any effect upon the attendance.

Those of us who have been members for fifteen years or more, and who are familiar with the various habitations we have occupied during that time, may well take pardonable pride in the appointments of our present abode, but must acknowledge that we have not yet solved the problem of infusing that interest which will bring our members together, except on special and unusual occasions.



These questions arise: Are we maintaining sumptuous apartments so far beyond our needs as to become burdensome? Do we really need anything more than a business office and the occasional use of an auditorium? Or, have we only partially carried out a project, which, when completed, would be the means of accomplishing the ideal results we would all like to see. No matter how great a work we may plan, or how complete the facilities and equipment we may provide for carrying on that work, the results will still be confined within the limitations defined by the personal element entering into the proposition. In the successful administration of the Society's affairs, the social interests, in that broad meaning of the term, are of as much importance as any other department of our work. The entertainment or social committee should have its work as clearly defined as that of the publication committee, and our finances should be managed so as to provide funds for the use of that committee and its sub-committees. The work of this department should not be viewed in that narrow plane wherein we see but an occasional evening's entertainment, but in its broad aspect, wherein it becomes the medium through which we are bonded together into a worthy organization having the mettle to accomplish the big things that come before us.

A conversation I had a few days ago with one of our members, affords much food for thought. This gentleman's experience as a member of the Society is, without question, identical with that of many of our members, and, being so, steps should be taken to make such a thing an exceptional and not a common condition. This gentleman's business prevents him from attending the meetings of the Society with any regularity, but at the meetings he has attended during the two or three years of his membership he met few men he knew and made but few, if any, new acquaintances. He has visited the rooms (I do not know how frequently), and, while he has been cordially received by the Secretary, he was disappointed to learn that we have so few visitors. He has not met the men he expected to come into contact with when he joined the Society, and said that his membership has really meant but little to him. None of this comment was offered in the nature of complaint, but as a plain

statement of fact. In addition to this he had a criticism to make, not relating to his experience as narrated above, but deploring the fact that the Society means so little in the welfare of the community. He told me that he read the copy of the Proceedings containing the discussion on the street railway problem, and said that the discussion was not strong enough and did not begin to do the Society justice. The ideas and arguments offered were not big and broad enough, were disappointing to one expecting to hear something of value on so important a subject, and did not have the required weight and force to give them value in the public press. This comes from a member who is a successful business man as well as an engineer, a gentleman of fine personal qualifications, a man too broad to be prejudiced in any criticism he might make, and one who would be warmly welcomed into the membership of any organized body of reputable men. Why should this man be such an obscure member of this Society, known by few of our members and probably not known by any of our officers, other than the Secretary?

Let the comparatively few of us who are really the active members, and well known to each other, take our roster of nine hundred members, go through it carefully name by name and try to figure out how many cases we have similar to the one just cited. If we do this we will probably begin to see ourselves as others see us. You will probably accept the statement that in the past three or four years not more than one hundred and fifty members have actively participated in the affairs of the Society. This includes, not only those who have served in an official capacity, but also those who have attended meetings with sufficient regularity to profit thereby. What of the seven hundred and fifty other members? What does membership in this organization mean to them? What more do they receive than their copy of the Proceedings, which they value from an impartial standpoint and not from the more or less prejudiced point of view of those responsible for its publication?

It is not sufficient that the usefulness of this Society should extend to but fifteen per cent. of its members. We differ from organizations where all the benefits of membership come with

initiation. In such bodies an attendance of fifteen per cent. would be considered a well attended meeting.

#### EXCURSIONS

The excursions we have had to points of engineering interest have been more effective in bringing the members together in large numbers than any other one of the Society's functions, and for that reason are classified jointly under the heads, "Professional Improvement" and "Social Intercourse." These excursions should be taken more frequently, and at as regular intervals as possible. The cost of these affairs must at times be met either from the general funds of the Society or be borne by those who participated in them. They need not always be local in character, but on special occasions distant trips might be made, occupying two to three days, the cost in such cases being borne by those who make up the party.

I have dwelt at length upon the social feature, not that all else should be subservient, but rather as a legitimate means to a desirable end. We are not primarily a social organization.

#### ADVANCEMENT OF ENGINEERING

The graphic analysis of that part of our organization coming under this head, will no doubt be considered radical by our conservative members, but it seems to me that no more rational construction can be put upon this particular one of our objects.

Modern civilization, as it exists today, has been made possible only by the work of the engineer; our removal from medieval barbarism is measured by the advances made in that profession with which we are identified. If we are to attempt to do anything which will tend to the advancement of engineering, a part of that work surely consists in the manifestation of a lively interest in the public engineering problems of our own community. During the years since the organization of this Society vast sums of money have been expended in public improvements, wisely or otherwise, I need not say. This refers to water works, sewers, bridges, parks, boulevards, streets and roads; and, under franchises granted by the city, includes our street railway system—all works of an engineering nature. Dur-

ing all of this period the annals of the Engineers' Society of Western Pennsylvania bear little or no record of the fact that any opinion whatsoever has ever been expressed upon the advisability of such expenditures from an economic or utilitarian point of view, nor has any action ever been taken whereby the Society, as a body, has declared itself upon the expediency of such improvement from an engineering standpoint. Papers have been read before the Society from time to time describing various works of magnitude undertaken by the city or county, as the case may be, but while they may have been excellent papers and written by very able men, they do not cover the point in question; that is, an action by the Society as a body, stamped with the approval of an organization of men qualified to pass upon the question at issue, and carrying with it that dignity which would compel the moulding of public opinion. It had been my purpose to ascertain to just what extent work of this description is undertaken by organizations similar to ours in other places, but I concluded that it was unnecessary to look for a precedent when our work lies so clearly defined before us. As we all admire a man who proves himself capable of doing things, so do men take pride in being identified with a progressive organization, and until this Society changes its ultra-conservative policy we will continue to live a life of mediocrity.

What I have said in regard to our attitude toward Public Works, applies also to those subdivisions coming under the heads, Public Service and Civics. It would be far from our thoughts to become partisans in local politics, as such; but as the leading and, in fact, the only organization in this community to which this work rightly belongs, we should occupy that plane where we would be an assurance to our fellow citizens and a power to be reckoned with by our public servants. As the diagram shows, this work would be carried on through special committees and by co-operation with other bodies, technical and civic. We should interest ourselves in the works of the United States Government so far as it comes within our province to do.

The entertainment of visiting technical societies seems to classify under this head rather than the social.



## ADMINISTRATION

As to whether any organization can live and flourish depends, first, upon whether that organization is a necessary or desirable one, and, second, upon its administration. An organization, necessary and otherwise successful, may fail because of an undesirable element coming into predominance. In this Society we have nothing to offer as an inducement to membership which would appeal to any but those who have the qualifications we require, and we have no undesirable element. As to whether this Society is a necessary organization requires no argument, and the question is passed as axiomatic.

A very common cause of disintegration in organized bodies is the failure on the part of those on the governing board to call into their councils, as committeemen or otherwise, members other than those numbering among their own acquaintances, with little effort to canvass the membership for available material among those with whom they may never have come into personal contact. As a consequence, the administration may for years be in the hands of a certain comparatively few men, who, drawn together by the work, and augmented possibly by other and outside interests, come into very close and friendly association. This results, unconsciously and no doubt unintentionally, in those of the administration becoming, in effect, a ruling power, and the management continues from year to year in the hands of the same set of men. This does not for a moment suggest the existence of politics or that the affairs are not handled in the most thoroughly business-like manner so far as those things in themselves are concerned. The evil exists in the fact that a comparatively small part of the membership ever becomes interested in the organization, nor are they ever made to feel that the organization may have some interest in them. This is quite a natural result of the premises taken, as it can very readily be assumed that any coterie of men in close, friendly relationship will have, to a very considerable extent, the same circle of friends and acquaintances to whom their influence extends. All activity centers around the few, and the main body of the association is a cold, unleavened mass. The

management may plan among themselves, but outside of their own limited circle there is little response and no enthusiasm.\*

It is sometimes a disadvantage to have on a board of management men who can spare but little of their time to devote to the work. While it may be a decided advantage, for many reasons, to have men of high standing in their professions, that particular benefit is offset by the many other demands made upon them. A roster of prominent men looks well in print, but may often mean poorly attended meetings and lack of activity in the organization, whatever it may be.

This Society is too old in point of years, is of too much value to its members and the community, and has too much latent energy to allow it to lead but a passive existence, or to become merely a bureau of publication.

#### DISCUSSION

MR. E. K. MORSE in opening the discussion said that he was glad the author qualified his remarks about cliques which might dominate to the detriment of the Society, and said that so far as his experience and knowledge of Society affairs extended, the men who were and had been in official positions had not sought them, that those men usually chosen as officers were active in the affairs of the Society, and that the Society had been free from cliques. He said this was certainly true during the time Mr. Albree was President when the membership of the Society reached its greatest number, and remarked that the growth of the Society had, in some degree, stopped, and that he was surprised to learn from the Secretary's annual report of a net increase of only five members during 1909, in spite of the fact that no one could have been more active than Past President Barnsley. He stated that, had the Board of Direction exercised what the By-Laws of the Society import, the membership would be much less than at present.

Referring to the comments of the Author on the need for the help of the layman engineer in carrying on public work, he spoke of the work of Mr. F. H. Newell, a most able layman

\* The thought here contained is based upon observations in another association extending over a period of years, and while it may not apply to any great extent, if at all, to this Society, is given expression that we may not fall into the same error.—AUTHOR.

engineer, who has had almost entire charge of the government irrigation work in the West, and said that the State Legislatures as well as the National Government will call more and more on the layman engineer, as improvements on the rivers and irrigation projects are multiplying many times faster than the number of engineers in the War Department. He referred to his connection with the Civic and Flood Commissions of Pittsburgh, and regretted that the city authorities had called into counsel engineers from outside the city rather than local engineers, as there are members of the Society eminently well qualified for the service required.

He mentioned the standing of the Society in the community and the work it should do in furthering the interests of the public in the matter of revising the building code, etc., and expressed the belief that the Society should take a more active interest in Civic affairs. He referred to the work of the Flood Commission, of which he is a member, which is composed of local engineers doing an immense amount of work without compensation, and mentioned the great amount of construction work which will be done in this vicinity during the next five years, at a cost of 60 to 75 millions of dollars, and stated the city authorities will make use of local engineers just the moment the Society makes itself a power in the community and exercises to the full extent its moral force.

MR. J. O. HANDY referred to the social feature as very important in the Society, and said that, while all derive much benefit from papers read, more attention should be given to making members acquainted with each other. He said that the inspection trips were a great help in this direction, and believed that the annual banquets should be so planned as to make them as representative of the membership as possible. While the banquets in the past have been very enjoyable, he believed that a reduction in price should be tried next year to see whether it would bring out a larger and more representative attendance.

MR. F. Z. SCHELLENBERG thought that the term *moral force* fit the case exactly, and said that if the city and county authorities felt that there was moral force behind the professional



ability in the Society that it would help its standing. He believed that there should be more inspection trips and social meetings of the Society.

MR. E. K. HILES was in full agreement with the Author in regard to appointing committees to report on civic work, and believed that if committees entered actively into their work and made reports on engineering work proposed to be carried on by the City and on recommendations made by the Mayor's cabinet that money would be saved to the City. He believed that, should occasion arise, the concerted efforts of the members of the Society would induce the authorities to change their plans on any engineering project which failed to secure its approval.

In the matter of membership he suggested that an active Membership Committee be appointed, which should hold frequent meetings and put into effect business methods, in an effort to add to our membership the 500 or more engineers in the Pittsburgh District who should be members of the Society. He further pointed out that the individual members of the Society could very largely assist the Committee in its work by forwarding to the Secretary lists containing names of engineers whom they considered would make desirable members.

He suggested that, although there are many brilliant men in the Society, it would be advisable for the Publication Committee to have papers presented four or five times a year by well-known engineers from other cities, and pointed out that this would not only add to the value and standing of our Proceedings, but very largely to the interest and attendance at our meetings. He believes that earnest continued efforts should be made to secure papers of more general interest, not only on engineering topics presented by non-resident engineers, but on matters of particular interest in the Pittsburgh District. He noted that within the past year when papers of particular moment had been presented by strong men that the auditorium had been crowded, and expressed the belief that the average attendance at meetings can be more than doubled if the Publication Committee were given a liberal appropriation to pay expenses of non-resident engineers presenting papers before the Society.

Referring to the Author's comments on the neglect of members to use the Society rooms, he suggested that the Entertainment Committee arrange for smokers to be held monthly in the rooms. He mentioned that the rooms are open every Saturday night, but the attendance has never been over half a dozen, and raised the question as to whether some other night in the week would suit the members better.

He mentioned the Employment Bulletin published monthly in the Proceedings, and suggested that the members of the Society could assist in the development of this work very largely by calling on the Secretary when in need of engineers or draftsmen, and also by suggesting to men applying for positions to call on the Secretary of the Society. He believes that the Employment Bulletin should be printed on the monthly notices, which are mailed about the middle of each month.

MR. G. E. FLANAGAN, speaking of the usefulness of the Engineers' Society in comparison with other bodies in civic good, suggested that it is not always the most showy factor that is really the potential factor in that or any other problem. He said that no one who has attended its meetings for a number of years past can consider that the Society has been an unimportant factor in the city's life, and that, though quiet, its influence has been felt. He expressed the opinion that the Author's paper is most timely in its effort to awaken the members to the fact that it is necessary for them in view of their very busy lives, to put pressure upon themselves to do their full part in the furtherance of the interests of the Society. He pointed out that we cannot expect to have the attendance at the rooms that a social club would have, as the membership is too busy with other things, and suggested that it is well worth considering whether the Society should maintain quarters of the character of its present rooms, exclusive of the auditorium and Secretary's office, or whether it would not be more beneficial in producing results to use the same rental for even smaller quarters more centrally located, where, as has been suggested, we could meet each other daily.

MR. O. L. GERWIG thought more attention should be given to bringing members into closer touch with each other, as there

is a decided lack of acquaintance throughout the membership. He believes that the younger members should be encouraged to take more interest in Society affairs.

MR. G. E. FLANAGAN remarked that one of the principal objects of the Society is to have engineering papers read at the meetings, and pointed out that one of the greatest difficulties is to secure the necessary number of papers on a sufficient variety of topics. He suggested that a member who desires to hear a paper on any particular subject should address a card to the Publication Committee suggesting the subject, and if he can include the names of members, or of non-members, capable of writing on, or of discussing, the subject, so much the better. He pointed out that if any considerable number of the members were to do this that the work of the Publication Committee and the Secretary would be materially lightened, and observed that the progress of the Society depends largely upon the efforts of this Committee and the Secretary.

MR. E. K. HILES in continuing the observations of the last speaker suggested that if every member of the Society were to keep the matter of programs for the Society in mind and would size up the various men they come in contact with during the day as to the possibility of securing papers of interest from them that the Publication Committee would receive many valuable suggestions.

In this connection he said further that the members of the Society could assist the management very largely in the matter of paying the expenses of publishing the Proceedings by dropping a word now and then with regard to the advertisements in the Proceedings. If suggestions were made to possible advertisers as to the advisability of advertising in the Proceedings, and the Secretary notified of such suggestions, and if members in writing for quotations would mention having seen a company's advertisement in the Proceedings, much good would result. He observed that our Proceedings can grow only as funds become available, and that the advertising columns is the most fruitful field for obtaining funds for that purpose. With more money available more papers can be published, which could be

more fully illustrated. The Secretary made these suggestions with the hope of enlisting the active interest of all members of the Society.

MR. P. S. WHITMAN observed that the Society lacked elasticity, and referred to the same names appearing on the various committees year after year. He recognized that there are good reasons for this being the case, and brought out the fact that the work of the Society is being done by a very few of the individual members. The speaker's experience in other organizations has been that the best results are secured by getting the most members at work. Referring to the criticism made that the Society does not take enough interest in public affairs, he observed that if a lively interest were taken that it would work a benefit not only to the community but to the Society. He suggested that there is no better way to become acquainted than to work on a committee which has some definite object in view.

MR. E. K. MORSE referred to the matter of advertisements in the Proceedings, and stated from personal knowledge that for ten years past there would have been a deficit running from \$500 to \$1500 every year had it not been for advertisements, and remarked that he knew of no other way to make it up. He referred to the time when he was Chairman of the Publication Committee, four years ago, when the Western Society of Engineers in Chicago received \$4000 for advertisements against our \$1200. He stated that this is one of the main sources of revenue for the Society, and thought that the members of the Society should render such assistance as they can.

MR. G. K. SMITH expressed the opinion that the Society should have a larger and more quiet auditorium in more centrally located quarters, and suggested in the interests of economy that it might prove advisable to do away with the floor space now devoted to the club room, unless the members spend more time in it than at present.

He remarked on the noticeable hesitancy on the part of the members to fraternize on meeting nights, and suggested that



the spirit of the "glad hand" be evidenced more generally in an effort to become acquainted with the "other fellow."

He suggested, in order to avoid the dire results of waning enthusiasm, that the personnel of the officers of the Society should be changed more frequently, with terms of office shortened to not more than one year, with the understanding that only those who have not held office be selected to fill vacancies, and that these selections be made not only from among the more active members, but also from those less active who appear promising. He referred to the very successful working out of this plan in another organization.

The speaker referred to the custom which formerly obtained among the members of assembling for dinner at 6:30 o'clock at a downtown hostelry on meeting nights. These dinners, moderate in price, were always preceded by an informal reception half an hour earlier in which real good-fellowship obtained. He was of the opinion that these dinners were of much benefit and added largely to the welfare of the Society.

He believed that the meetings should be made popular by getting the prominent engineers to come out, and referred to the very human desire cherished by the "man down the line" to meet and enjoy the benefit of acquaintance with the man "higher up."

MR. J. O. HANDY suggested in furtherance of the "glad hand" idea that the plan might be followed on meeting nights of members wearing slips of paper bearing their names. He said he had seen this tried with good success in getting acquainted on several occasions, and that it indicated a desire to have men speak to the member.

MR. E. K. HILES in speaking on the subject of getting acquainted said that he had tried the expedient of pinning little ribbons labeled *Reception* on the coat lapels of a number of members at each meeting, remarking to them during the pinning operation that the position was not purely honorary but one that called for good, active hustling. In spite of this caution, however, three or four of the decorated members would frequently be seen talking together in a corner, which was hardly

what they were supposed to do; but stated that in the main these impromptu Reception Committees did efficient and faithful work.

MR. G. P. CAVALIER said he was one of the new members in the Society, having been elected to membership only a couple of months ago, during which time he had met quite a number of members, and that he was surprised to hear complaints of lack of sociability, and suggested that the Society is probably improving in this direction and that the conditions complained of do not exist at present.

Referring to the statement that the work of the Society is carried on by only a few members, he observed that in most organizations there are usually only a few men willing to do the work necessary to the success of the organization.

He said that one of the principal inducements to him in becoming a member of the Society was the fine library and the reading rooms, and that he would be very sorry to dispense with them in order to go into smaller quarters; but believed that a more central location would be advantageous.

MR. F. B. MARTIN said that the Civil Engineers' Society of Eastern New York use a little lapel button holding a slip of paper on which the name of each member is printed, and as a stranger in that Society he had found the plan very useful.

He observed that young men join the Society with the hope of meeting their superiors, and referred to the first meeting he attended when the three men who recommended him were all absent, leaving him in the position of feeling that he had "butted in." He remarked that the situation was a discouraging one when the younger men are not introduced to the older members, that a feeling soon becomes ingrown that their superiors do not care to know them, and they drop away from active interest in the Society.

He referred to discussions of papers in the Sections, and observed that the young men at times feel a hesitancy about entering into the discussion, which could be overcome by an effort on the part of the presiding officers.

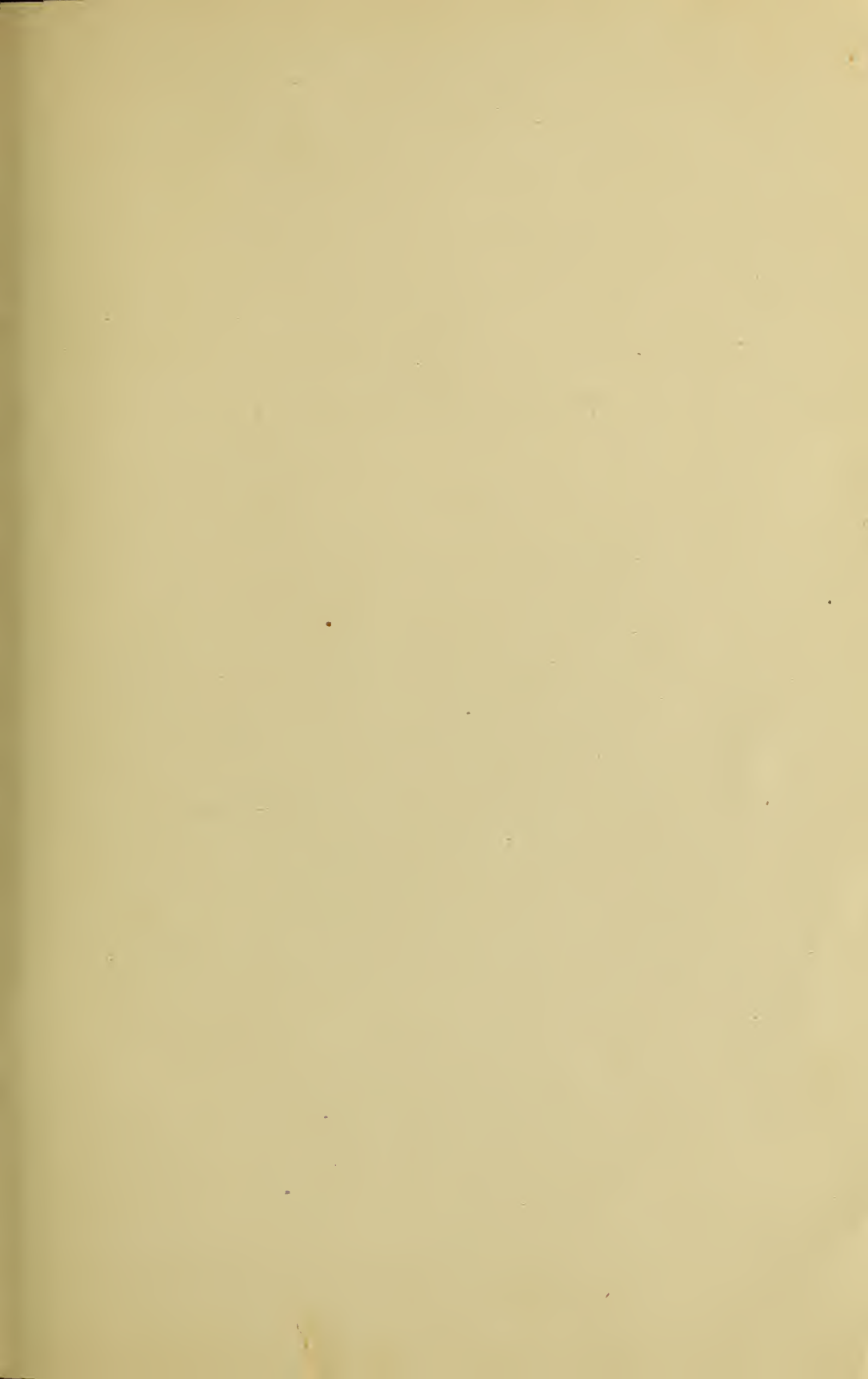
He said that it does help the younger men to have the

older members give them the "glad hand," and that the younger members frequently mention this.

He said further that he had derived great benefit from his membership in the Society, though much of the time he has been a non-resident member, and that he has met many men throughout the country who have profited from the Proceedings.

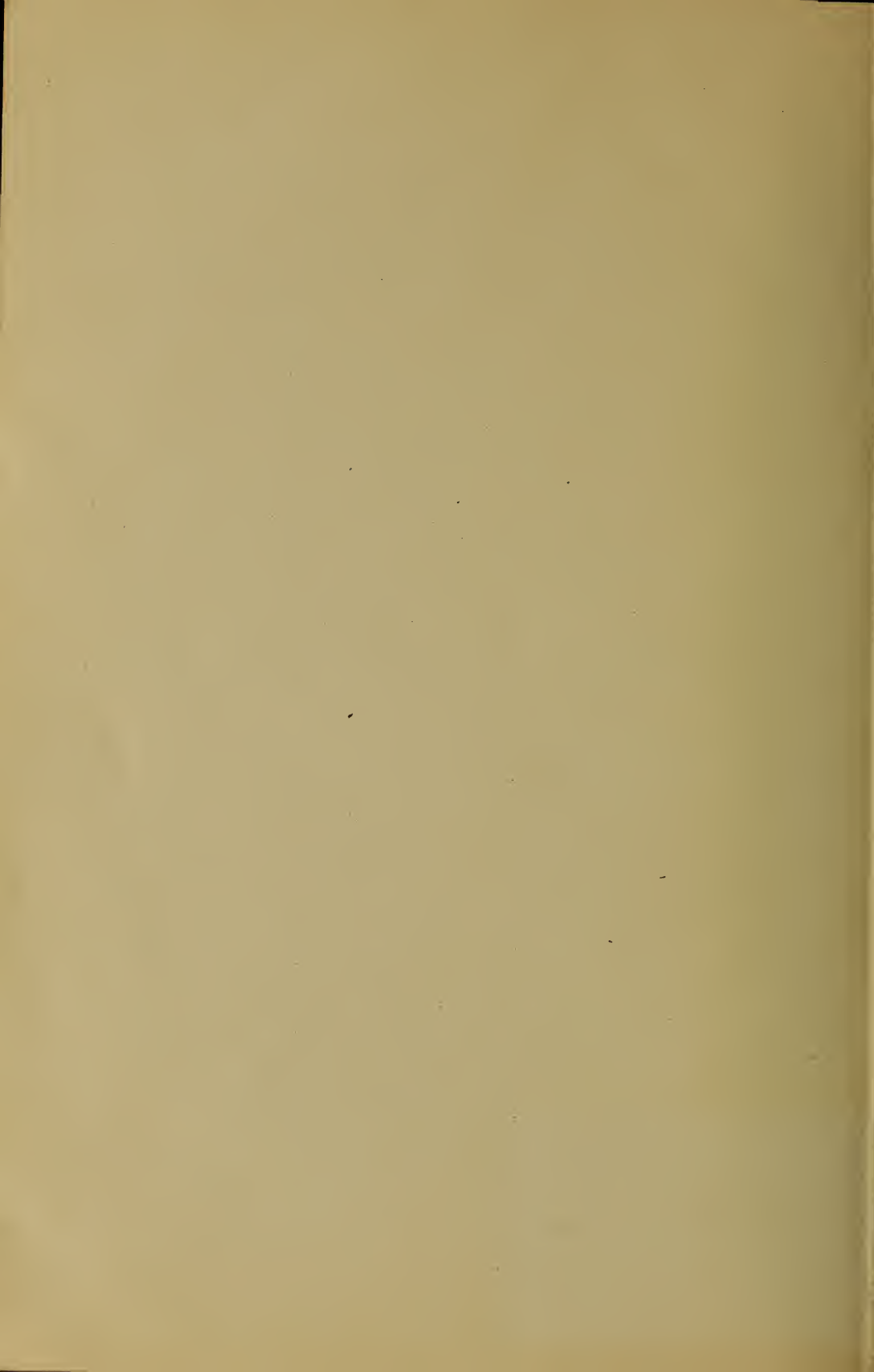
MR. JOHN ALLISON was of the opinion that something in the nature of informal meetings is needed which will give new, or prospective, members more opportunities of getting acquainted than the few minutes available before the regular formal meetings.











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